PENTODE

Pentode intended for use in transitron circuits in television receivers.

QUICK REFERENCE DATA			
Anode current	I_a	3.0	mA
Transconductance	S	2.2	mA/V
Amplification factor	$\mu_{g_2g_1}$	38	-
Internal resistance	R_i	2.5	MΩ

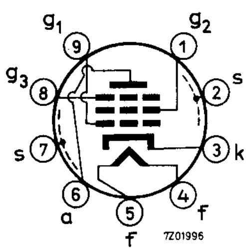
HEATING: Indirect by A.C. or D.C.; series supply

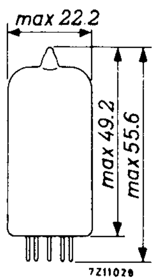
Heater current	I_f	300	mA
Heater voltage	V_f	4.5	V

DIMENSIONS AND CONNECTIONS

Dimensions in mm

Base: Noval





CAPACITANCES

Anode to all except grid No. 1	$C_{a(g_1)}$		5.1	pF
Grid No. 1 except anode	$C_{g_1(a)}$		3.5	pF
Anode to grid No. 1	C_{ag_1}	max.	0.07	pF
Grid No. 1 to heater	C_{g_1f}	max.	0.03	pF

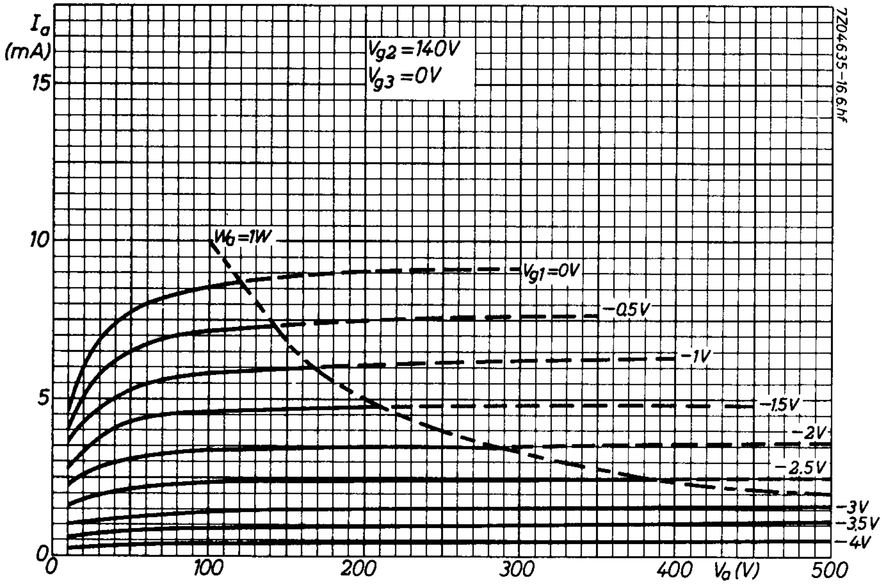
TYPICAL CHARACTERISTICS

Anode voltage	V_a	100	250	V
Grid No. 3 voltage	V_{g_3}	-30	0	V
Grid No. 2 voltage	V_{g_2}	35	140	V
Grid No. 1 voltage	V_{g_1}	0	-2.2	V
Anode current	I_a	max. 0.01	3.0	mA
Grid No. 2 current	I_{g_2}		0.6	mA
Transconductance	S		2.2	mA/V
Amplification factor	$\mu_{g_2 g_1}$		38	-
Internal resistance	R_i		2.5	MΩ

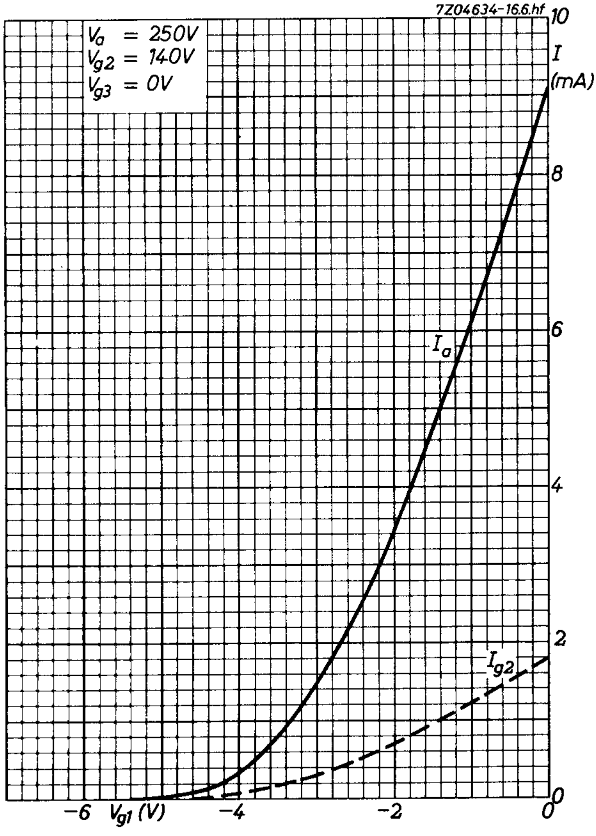
LIMITING VALUES (Design centre rating system)

Anode voltage	V_{a_o}	max.	550	V
	V_a	max.	300	V
Anode dissipation	W_a	max.	1	W
Grid No. 2 voltage	$V_{g_{2o}}$	max.	550	V
	V_{g_2}	max.	200	V
Grid No. 2 dissipation	W_{g_2}	max.	0.2	W
Cathode current, average	I_k	max.	4	mA
peak	I_{k_p}	max.	25	mA [1]
Grid No. 1 resistor ($W_a < 0.2$ W)	R_{g_1}	max.	10	MΩ
($W_a > 0.2$ W)	R_{g_1}	max.	3	MΩ
Grid No. 3 resistor	R_{g_3}	max.	0.1	MΩ
Cathode to heater voltage	V_{kf}	max.	100	V

[1]) Max. pulse duration 4% of a cycle but max. 0.8 ms.



I_a (mA)
15
10
5
0
V_{g2} = 140V
V_{g3} = 0V
W_a = 1W
V_{g1} = 0V
−0.5V
−1V
−1.5V
−2V
−2.5V
−3V
−3.5V
−4V
0
100
200
300
400
V_a (V)
500
7Z04635-16.6.hf


7Z04634-16.6.hf
V_a = 250V
V_{g2} = 140V
V_{g3} = 0V
10
I
(mA)
8
6
4
2
0
I_a
I_{g2}
−6
V_{g1} (V)
−4
−2
0

PHILIPS

Data handbook

Electronic components and materials

PF86

page	sheet	date
1	1	1969.12
2	2	1969.01
3	3	1969.01
4	4	1969.01
5	FP	1999.08.03